

Exploring Hostility Toward Women in High-Risk Rapists: The Relevance of Ambivalence and Relational Experience

Sexual Abuse

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Abstract

Hostility toward women is an established risk factor for sexual violence and is often found to be present in men prone to sexual transgression. There are also clinical indications that high-risk rapists may have more ambivalent attitudes toward women, including the strong desire to be positively evaluated by women. We investigated attitudes toward women in high-risk male rapists ($n = 42$), nonsexual male offenders ($n = 65$), and matched male community controls ($n = 42$), by means of self-report (hostility toward women, benevolent sexism, hostile sexism) and implicit measures assessing associations (Implicit Association Test [IAT]) with “women are deceitful” and “women are prestige objects,” and the approach tendency (Approach–Avoidance Task [AAT]) toward women. Results showed that high-risk rapists had a lesser implicit notion of women as deceitful and more explicit benevolent sexism than the community controls. These differences seemed most prevalent in the subgroup of high-risk rapists without any relationship history. It is hypothesized that unrealistically positive attitudes toward women may lead to rejection and frustration, which may influence sexual offending.

Keywords

rapists, hostility toward women, implicit assessment, ambivalence, sex offending

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Hostility toward women is an established risk factor for sexual violence and is often found to be present in men prone to sexual transgression. Hostility toward women can be described as the belief that women are manipulative, dishonest, and deceitful (Check, 1984; Malamuth & Brown, 1994). It may result from past rejections and deprivations from women, whereby a man may desire to hurt and use coercion rather than agreement (Check, 1984; Malamuth & Brown, 1994). Hostile attitudes toward women are most consistently found to be related to sexual violence in community samples, but less consistent in high-risk sex offender samples. Furthermore, there are some indications that ambivalence toward women might be a relevant factor in sexual offending, yet empirical research to this is lacking. The current study aims to assess ambivalence toward women in high-risk rapists, to increase our understanding of the causal mechanisms behind sexual offenses in high-risk offenders.

Hostility Toward Women in Relation to Sexual Violence

Hostility toward women is often related to sexual violence in community samples. Murnen et al. (2002) conducted a meta-analysis on 39 studies with community samples about “masculine ideology” and its relation to sexual aggression. They found that hostility toward women was among the variables with the largest effects ($r = .26$), mostly assessed using the Hostility Toward Women Scale (HTWS; Check, 1984), as well as the Adversarial Sexual Beliefs Scale (Burt, 1980) and the Attitudes Toward Women Scale (Spence et al., 1973). More recent studies showed that hostility toward women, as assessed by the HTWS, was related to self-reported past sexual violence or self-reported future rape likelihood in community samples of men and male student samples (Degue & DiLillo, 2004; Forbes et al., 2004; Russell & King, 2016). Furthermore, several longitudinal studies showed that hostility toward women predicted later sexual violence in male students (Abbey & McAuslan, 2004; Kingree & Thompson, 2014; Zinzow & Thompson, 2015).

There are some, but decidedly fewer and smaller studies assessing some form of hostility toward women in samples including sex offenders. Tharp et al. (2013) conducted a systematic review over 191 studies including 122 community samples (mostly male students), 43 adolescent sex offender samples, and 25 adult sex offender samples, to examine risk and protective factors for sexual violence against adult victims. Tharp et al. used the original studies’ decisions about whether the results were defined as statistically significant or not. Of the 42 studies that included hostility toward women, 32 showed statistically significant effects in relation to sexual violence. The authors note that “*this literature is limited by its overreliance on college samples*” (p. 140).

Very few studies have specifically explored the relationship between hostility toward women and recidivism in rapists. A retrospective correlational study among 158 incarcerated sex offenders *against children* using the Rape Myths Scale (Burt, 1980) found that recidivists reported higher hostility toward women scores than first-time offenders (Thornton, 2002). Based on these results, hostility toward women was eventually incorporated in the sex offender risk assessment instrument STABLE-2000,

from which STABLE-2007 was developed (Hanson et al., 2007), which is now commonly used for both rapists and child abusers. The large scale longitudinal Dynamic Supervision Project (DSP) found that hostility toward women was among the least frequent STABLE-trait with less than 5% of offenders receiving a maximum score of 2. Results showed a significant relationship between hostility toward women and all types of recidivism, with an area under curve (AUC) of 0.58 for sexual recidivism (Hanson et al., 2007). These results were not broken down for child molesters and rapists separately. The DSP sample ($n = 805$) included 35% rapists and could be categorized as a predominantly low- to medium-risk sample based on the Static/STABLE-2007 scores. The operationalization of hostility toward women in the STABLE manual is not based on a questionnaire, but on behavioral characteristics¹.

Mann et al. (2010) listed risk factors for sexual recidivism that were empirically supported by the meta-analytic summary of at least three studies. Hostility toward women was not listed as “supported,” but was among the “promising” risk factors, possibly due to the lack of empirical evidence. More recently, a meta-analytic study ($k = 21$, $n = 6,955$) found that hostility toward women significantly predicted sexual recidivism (Brankley et al., 2019). The majority of the offenders in this study was in the moderate STABLE-2007 risk level and average Static-99R risk level, studies were equally drawn from institutional and community settings, and the authors did not provide analyses separately for rapists. In short, hostility toward women is consistently found to be a risk factor for sexual offending in community samples or lower to average risk sex offenders samples, but no research has been conducted in high-risk samples or in samples of rapists specifically.

Ambivalent Attitudes Toward Women in Relation to Sexual Violence

Ambivalent attitudes toward women is another promising construct that may help explain sexual offending. *Ambivalent* attitudes toward women can be inferred when both negative or hostile and unrealistically “positive” evaluations of women coexist². The definition of hostility toward women (Check, 1984; Malamuth & Brown, 1994) in itself includes a double notion: if men’s views toward women are merely hostile, they might as well avoid women altogether, like sex offenders against children sometimes do. Therapists in clinical practice specifically recognize that rapists are often strongly preoccupied with finding a female partner and that they fall in love often and easily, and desire for intimacy has been included as a driving factor in typologies of rapists (M. Cohen et al., 1969; Grubin & Kennedy, 1991; Van Beek, 1999). It is suggested that when individuals lack the skills to reach intimacy with an adult, they might direct this toward a child or nonconsenting adult instead (Thornton, 2013; Ward & Gannon, 2006).

Some empirical evidence in community samples shows that hostility toward women might be accompanied by relatively “positive” evaluations of women. It is suggested that sexism comprises two correlated components that are distinct, but not necessarily conflicting: hostile sexism and benevolent sexism (e.g., Abrams et al., 2003; Glick & Fiske, 1996). Hostile sexism is a dominative and negative sexist view (e.g., “women

fail to appreciate all that men do for them"). Benevolent sexism is relatively and subjectively positive (e.g., "women must be rescued first from a sinking ship"), however, albeit the protective undertone, it still draws upon women's inferiority. Hostile (not benevolent) sexism predicted self-reported sexual coercion proclivity in community samples (Abrams et al., 2003; Forbes et al., 2004) and correlated with perpetration of verbal sexual coercion in students (Eaton & Matamala, 2014). These concepts have yet, to our knowledge, not been assessed in sex offender samples.

In line with these apparent internal contradictions, Berliant et al. (2011) found that a higher extent of explicitly assessed hostility toward women in a community sample was associated with *less* implicitly assessed negative evaluation of women. Implicit measures indirectly tap into unconscious beliefs or values for instance by measuring reaction times to stimuli, whereas explicit measures usually are questionnaires directly assessing conscious ideas. Edwards et al. (2014) distinguished three groups among 73 male college students: men who did not endorse any rape-related descriptions (the "no intentions" group; 67%), men who bluntly reported intentions to rape (the "rape" group; 14%), and men who endorsed behavioral descriptions of force to obtain intercourse but denied the intention to rape when the descriptions were explicitly labeled as "rape" (the "force" group; 18%). The authors conclude that the "force" group did not experience hostility toward women as much as the "rape" group did, but might have dispositions more in line with benevolent sexism, whereas the "no intentions" group reported neither.

Furthermore, studies find that the need for intimacy with a woman and/or the lack thereof is related to sexual offending in several samples of male sex offenders of undetermined risk level, varying from nonincarcerated to incarcerated rapists (Garlick et al., 1996; Marshall & Hambley, 1996; Seidman et al., 1994). In a study with 50 juvenile sex offenders and 50 juvenile nonsexual offenders in residential and outpatient treatment, one of the largest group differences was found on the scale "intimacy seeking," with the higher risk residential group expressing more intimacy seeking than the lower risk outpatient group (Zakireh et al., 2008). Furthermore, certain types of rapists show a clear approach tendency toward women and have a strong desire for a sexual relationship with a woman (deviant sexualizing rapist; Van Beek, 1999). Finally, a study comparing rates of sexual assaults in various cultures concluded that sexual coercion is more likely in a culture of honor, where honor means that "... women will tend to be viewed by men as confirmations of, and rewards for, the attainment of respect and social precedence" (Brown et al., 2018, p. 539). In sum, there is not much research to relatively "positive" or ambivalent attitudes toward women in relation to sexual violence, yet there are some indications that such attitudes might be risk-relevant for sexual offending.

Ambivalence can be assessed directly, by means of explicit questioning of hostile and relatively positive attitudes toward women, and indirectly, by measuring approach and avoidance tendencies toward women. This is usually done with reaction time tasks in which the speed of approach behaviors and avoidance behaviors toward various stimuli is measured as opposed to a control category of stimuli. As such, ambivalence was demonstrated in a student sample where students in a lasting romantic relationship

showed both approach and avoidance tendencies toward sexual stimuli, whereas students not currently in a relationship only showed approach tendencies (Hofmann et al., 2009). Also, studies found that men with cybersex addiction showed both more approach *and* avoidance toward sexual stimuli than men without cybersex addiction (Schiebener et al., 2015; Snagowski & Brand, 2015). With regard to sexual offenses it is suggested that resorting to aggression, rather than simply avoiding women, may be the result of not being able to override one's coexisting approach tendency (Kaldewaij et al., 2016).

The Current Study

Overall, the literature points toward a moderate relationship between hostility toward women and sexually transgressive behavior in student and other community samples of men, and among heterogeneous sex offender samples with low to average risk to reoffend. To our knowledge, there are no studies to date that examined hostility or ambivalence toward women in high-risk sex offenders or rapists specifically. The current study focused on high-risk rapists and pursued two major aims; first, to assess the prevalence of hostility toward women and, second, to explore the presence of ambivalent attitudes toward women in a sample of high-risk rapists with both explicit and implicit measures. We hypothesized that high-risk rapists would show more ambivalence, that is, more hostility and more relatively "positive" attitudes toward women than nonsexual offenders and community controls. This is important, because it has been hypothesized that high-risk sex offenders may be qualitatively different from typical sex offenders and may follow different routes to their offending behavior (Smid & Wever, 2019). These high-risk sex offenders are relatively rare and usually comprise a very small part of mixed/routine research samples, which are used in the majority of the available studies on this topic. Furthermore, hostility toward women is an item used in risk assessment instruments such as the STABLE-2007, which is commonly used for the assessment of high-risk rapists.

A preceding field study was conducted among 17 psychotherapists who (had) had numerous rapists in their caseload (see Online Supplement: Field Study). They reported that they did not use specific diagnostic methods, other than risk assessment instruments, to assess hostility toward women. Furthermore, they did not recognize hostility toward women as a frequent problem in the high-risk rapists in their care. If present, the most recognizable attitudes toward women in high-risk rapists were deemed to be "women are deceitful" and "women are trophies/provide prestige." This information was used as input for the current study.

Method

Sample

In approximately 5% of all sex offender convictions in the Netherlands, the court imposes mandatory inpatient treatment of indefinite length (Brouwers & Smit, 2005).

This form of treatment is referred to as “ter beschikking stelling” (tbs), which translates as: “put at the disposition of the government.” The tbs is reserved for high-risk and high profile cases and is comparable with civil commitment. Although the average treatment duration is approximately 10 years, most sex offenders do get discharged from tbs (for an example of a treatment program of a tbs treatment facility, see Binsbergen et al., 2007). The current research included patients from three such secured psychiatric tbs-hospitals in the Netherlands.

For the high-risk rapist group ($n = 42$), male patients were selected for whom the majority of their sexual victims was 16 years of age or older and who had no victims younger than 14 years. Given the nature of the tbs-disposition, the rapists subsample in this study forms a very specific subgroup of rapists who are all convicted for violent stranger rape, mostly serial rape, and sometimes together with sexual homicide. Risk assessment places these offenders in the highest risk categories (Smid et al., 2016). Data for the STABLE-2007 item “Hostility toward women” and Static-99R scores were available for 18 of the 42 rapists, all were patients from one of the three participating psychiatric hospitals. Because in the Netherlands, sex offenders are referred to the hospitals randomly (Nagtegaal et al., 2011), this subsample may be expected to be representative. Scores indicated that hostility toward women was absent in 72% of the sample (score 0) and somewhat/partly present in 28% of the sample (score 1; NB, none of the rapists received the maximum score of 2). These scores are slightly lower than those of the DSP sample, which is considered a routine sample, where 75% scored “0,” 24% scored “1,” and 6% scored “2” (Hanson et al., 2007). Static-99R scores indicated that this was a high-risk sample, with $M = 5.8$ and $SD = 2.0$; only 4% of sexual offenders from routine samples score higher than 6 (Phenix et al., 2016).

A control group of nonsexual male offender ($n = 65$) was selected from the same tbs-hospitals, consisting of patients who were convicted of serious violent nonsexual offenses. Patients could not participate if they had acute psychotic symptoms or received high doses of psychotropic medication that would significantly interfere with their reaction times, or if they reported no sexual interest in women. A community control group of men was acquired by advertisement ($n = 7$) and snowball sampling ($n = 35$), adding up to a total of $n = 42$. The inclusion criteria for the community control group were as follows: no self-reported acute treatment of any psychiatric or psychological disorder; no self-reported history of violent or sexual offense; educational level below college; and self-reported sexual interest in women. During recruitment, the groups were matched as closely as possible with regard to age, country of birth, and intelligence.

All participants ($n = 149$) were male and reported a sufficient understanding of the Dutch language. An overview of descriptive information of the subgroups is provided in Table 1.

Explicit Instruments

Revised HTWS. Hostility toward women was measured explicitly using the revised HTWS (original by Check, 1984; revision by Lonsway & Fitzgerald, 1995). This scale

Table 1. Descriptive Information by Subgroup.

Variables	Nonsexual offenders (n = 65)		Community controls (n = 42)		Rapists vs. nonsexual offenders		Rapists vs. community controls	
	M(SD)	M(SD)	M(SD)	M(SD)	Effect size	95% CI	Effect size	95% CI
Age (years)	42.45 (11.05) ^A	38.92 (10.51)	36.14 (13.38) ^B	93% (n = 39) ^B	d = 0.33	[-0.11, 0.75]	d = 0.51	[-0.06, 0.72]
Nationality (Dutch)	71% (n = 30) ^A	74% (n = 48)	93% (n = 39) ^B	OR = 0.88	[0.37, 2.11]	OR = 0.19	[0.05, 0.74]	
Identity (Dutch)	83% (n = 35)	75% (n = 49)	93% (n = 39)	OR = 1.63	[0.61, 4.39]	OR = 0.38	[0.09, 1.60]	
Education								
None or primary school only	14% (n = 6)	12% (n = 8)	0% (n = 0)	OR = 1.19	[0.38, 3.70]	OR = 15.14 ^a	[0.82, 277.94]	
Vocational training	62% (n = 26) ^A	52% (n = 34) ^A	86% (n = 36) ^B	OR = 1.48	[0.67, 3.27]	OR = 0.27	[0.09, 0.79]	
High school and higher								
Other	21% (n = 9) ^A	28% (n = 18) ^A	5% (n = 2) ^B	OR = 0.71	[0.29, 1.78]	OR = 5.45	[1.10, 27.02]	
Marital status	71% (n = 30) ^A	77% (n = 50) ^A	36% (n = 15) ^B	OR = 0.75	[0.31, 1.82]	OR = 4.50	[1.79, 1.29]	
(Single)								
Ever lived together	74% (n = 31) ^A	48% (n = 31) ^B	48% (n = 20) ^B	OR = 3.09	[1.33, 7.18]	OR = 3.10	[1.24, 7.75]	
IQ (DART)	87.46 (10.26)	86.48 (11.90) ^A	92.76 (11.90) ^B	d = 0.09	[-0.30, 0.47]	d = -0.48	[-0.91, 0.04]	
Social desirable responding								
Self-deceptive Enhancement	.46 (.46)	.56 (.51) ^A	.21 (.60) ^B	d = -0.20	[-0.59, 0.19]	d = 0.47	[0.03, 0.90]	
Impression management	.05 (.65)	.03 (.61)	.00 (.52)	d = 0.03	[-0.36, 0.42]	d = 0.08	[-0.34, 0.51]	
Treatment duration (months)	48.48 (42.47)	49.82 (42.84)	na	d = -0.03	[-0.42, 0.36]	na	na	

Note. NB. Different subscripts A, B and bolded effect size indicate mean scores differ from each other at $p < .05$. DART = Dutch Adult Reading Test.

^aHaldane-Anscombe correction was applied, that is, 0.5 was added to each cell to avoid cell size of 0.

contains 10 true-or-false items, such as “When it really comes down to it, a lot of women are deceitful.” A sum score is calculated after recoding reversed items. A Dutch translation of the Revised HTWS was made for the current study. The translated scale showed sufficient reliability, with Cronbach’s $\alpha = .71$.

Ambivalent Sexism Inventory. Hostile and benevolent sexism were measured explicitly with the concordant scales of the Ambivalent Sexism Inventory (Glick & Fiske, 1996), which has 22 statements concerning men and women and their relationships in contemporary society, such as “women should be cherished and protected by men” (benevolent) or “women seek to gain power by getting control over men” (hostile). Participants answer on a 6-point Likert-type scale, ranging from 0 (*strongly disagree*) to 5 (*strongly agree*). A hostile sexism score and a benevolent sexism score were calculated separately by averaging concordant items. For the current study, the scales were translated to Dutch. The translated scales showed sufficient reliability, with Cronbach’s $\alpha = .76$ for hostile sexism and $\alpha = .73$ for benevolent sexism.

Dutch Adult Reading Test (DART). Educational level and current profession are less indicative of cognitive functioning for a sample that has been in long-time clinical care. Therefore, an additional assessment of IQ was done in the form of the DART. This is a quick and reliable estimator of verbal IQ (Schmand et al., 1992). The test requires the reading of 50 words that have irregular or unusual pronunciation. Pronunciation of the words is scored as right (2 points), doubtful (1 point), or wrong (0 points), and a sum score is calculated, which is converted into an approximate IQ score. Although the DART tends to somewhat underestimate IQ in the lower regions (de Ligt et al., 1995), it was used as a rough IQ estimate to match the groups because of its easy and quick administration.

Balanced Inventory of Desirable Responding. Social desirable responding was measured using the short Dutch version of the Balanced Inventory of Desirable Responding (Paulhus & John, 1998). The 10-item *Self-Deceptive Enhancement Scale* measures honest, but unconsciously inflated self-descriptions, for example, “Once I’ve made up my mind, other people can seldom change my opinion.” The 10-item *Impression Management Scale* measures consciously inflated self-descriptions, for example, “I never take things that don’t belong to me.” Participants answer on a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher mean scores indicate higher self-deceptive enhancement and higher impression management (Stöber et al., 2010). In the current experiment, both scales of the Balanced Inventory of Desirable Responding showed unacceptable reliabilities, with self-deceptive enhancement Cronbach’s $\alpha = .51$ and impression management $\alpha = .55$, which contradicts previous findings in community samples (Steenkamp et al., 2010) and a forensic sample (Kroner & Weekes, 1996). Deletion of the items with the lowest correlation did not improve the reliability of the total scale. Therefore, while we still report on these scales, results are to be interpreted with caution.

Demographic information form. Participants completed a short questionnaire about their age, nationality, educational level, current profession, marital status, length of longest romantic relationship with a woman, and having ever lived with a woman in a romantic relationship for longer than 2 years. The variable “Ever lived with lover for at least two years” is a known risk factor from the Static-99R and STABLE-2007 (Hanson et al., 2007; Hanson & Thornton, 2000).

Implicit Instruments

In a prior field study, 17 tbs-therapists reported that the two specific attitudes most frequently present among rapists were the hostile attitude “women are deceitful” and the positive attitude “women are trophies/provide prestige” (see Online Supplement: Field Study). These specific attitudes were subsequently used to develop a deceitful-Implicit Association Test (IAT) and a prestige-IAT.

Deceitful-IAT. The deceitful-IAT was designed for the current study to assess the association between *women* and *deceitful* (original IAT by Greenwald et al., 1998). The attribute category included the labels “deceitful” versus “honest,” the target category included the labels “man” versus “woman.” All category labels had five matched stimulus words, for example “she” or “lady” for woman. Stimulus words for the attribute category were chosen to imply certain deliberateness behind the characteristics, for example, rather “reliable” and “mean” than “nice” and “dumb.”

Participants performed the IAT on a laptop computer. Category words were presented on the left and on the right side of the screen. Stimulus words were presented in the middle and had to be assigned to either the left category by pressing the E-key or to the right category by pressing the I-key (see Online Supplement Figure S1). First, the attribute category (deceitful/honest) was practiced in 20 trials, then the target category (man/woman) was practiced in 20 trials. Then, in 60 trials, both categories were presented on the screen in combination, where stimulus words from attribute and target category were randomly presented and had to be assigned to the left or the right side, while paying no attention to the irrelevant category. Halfway, the target category (man/woman) switched sides and the new position was first practiced in 20 trials, after which the attribute and target category were paired again, but now with the reverse positions (60 trials). Participants were instructed to respond as fast and accurate as possible. After an incorrect response, a correct response was required to continue. Blocks were counterbalanced such that half of the participants started with the women–deceitful and men–honest combination and the other half started with the women–honest and men–deceitful combination.

IAT data analyzed conform the procedure from Greenwald et al. (2003). Trials with latencies larger than 10,000 ms were eliminated. For each subject, mean latencies were calculated for each combination, as well as the standard deviation over all trials. An individual difference score was calculated by subtracting the mean latencies to the women–deceitful and man–honest combination from the mean latencies to the women–honest and man–deceitful combination ($M^{\text{womenhonest and mendeceitful}} - M^{\text{womendeceitful and menhonest}}$),

and dividing this by the standard deviation $(\sqrt{\sum_{i=1}^N (x_i - \bar{x})^2 / (N-1)})$. This resulted

in the final difference score (D-score) for the deceitful-IAT per subject. A positive deceitful-IAT D-score indicated that participants responded relatively faster on the women–deceitful and man–honest combination, or slower on the women–honest and men–deceitful combination. This indicated that women and deceitful (and man and honest) were closer associated than women and honest (and man and deceitful), that is, $M^{\text{womenhonest and mendeceitful}} > M^{\text{womendeceitful and menhonest}}$. A negative deceitful-IAT D-score indicated a closer association between women and honest (and between man and deceitful) and a less close association between women and deceitful. In the current experiment, the deceitful-IAT had a good split-half reliability (odd–even method), with Spearman–Brown $r_s = .97$.

Prestige-IAT. The prestige-IAT was designed for the current study to assess the association between *wanting* and *women as a trophy/prestige object*. The attribute category included the labels “women as trophies/prestige objects” versus “women as an equal partner” (named *prestige* and *equal* hereafter), the target category included the labels “wanting” versus “not wanting.” The target category had five matched stimulus words expressing wanting (e.g., “I desire”) and five expressing not-wanting (e.g., “I do not desire”). The attribute category used five stimulus pictures for prestige and five for equal. Stimulus pictures were all black and white pictures expressing either prestige scenes (e.g., women as “trophy wives”) or equal scenes (e.g., equal relationships; see Online Supplement Figure S2). Pictures were matched on brightness, orientation, and type of scene (e.g., a prestige picture of a sport jock with a cheerleader was matched with an equal picture of a man and women practicing sports together). Pictures were also matched on position, posture, age, and attractiveness of depicted people. The series of pictures was validated in a stimulus validation study (see Online Supplement: prestige-IAT stimulus validation). The same data processing was applied as for the deceitful-IAT. Here, a positive prestige-IAT D-score indicated that wanting and prestige (and not-wanting and equal) were closer associated than not-wanting and prestige (and wanting and equal). A negative prestige-IAT D-score indicated a closer association between not-wanting and prestige (and between wanting and equal). In the current experiment, the prestige-IAT had a good split-half reliability (odd–even method), with Spearman–Brown $r_s = .98$.

Approach–Avoidance Task (AAT). The AAT assessed approach/avoidance tendency toward women and men (original by Rinck & Becker, 2007). In the AAT, subjects are instructed to pull or push a joystick based on the presented stimulus, that is, picture of a man or a woman. When pulled, the picture enlarges such that the participant virtually approaches the picture. When pushed, the picture size decreases such that the participant virtually avoids the picture. Instructions thus varied between “push away when the stimulus is a woman” and “pull toward you when stimulus is a man” and vice versa. A relative faster pull reaction indicates an approach bias to the stimuli, a relative

faster push reaction indicates an avoidance bias. The instructions of Rinck and Becker (2007) were followed for the experimental setup. Stimuli were eight whole-body pictures of women and eight whole-body pictures of men standing in front of a white background. Pictures were matched on ethnicity, clothing, color, posture, age, and attractiveness of the depicted people. Push/pull instructions changed halfway through the assessment (women-pull became women-push and vice versa). Both test blocks (64 trials) were preceded by a practice block (16 trials). Participants were instructed to respond as accurate and as fast as possible. Blocks were counterbalanced such that half of the participants started with the woman-pull instruction and the other half with woman-push.

The AAT data were analyzed with the same procedure as the IAT data, using standardized difference scores instead of mean scores or medians (Wiers et al., 2011). Only correct trials were used. Latency was the time to finish a reach with the joystick. The D-score was calculated by subtracting the mean latency women-push (and men-push) from the mean latency from women-push (and men-pull) blocks, ergo $M^{\text{womanpush and menpush}} - M^{\text{womanpull and menpull}}$. A positive AAT D-score means that the mean latency for woman-pull blocks was shorter than the mean latency for woman-push blocks ($M^{\text{womanpush and menpush}} > M^{\text{womanpull and menpush}}$). In this case subjects showed an approach bias toward women (and avoidance of men). A negative AAT D-score indicated an avoidance bias of women (and approach toward men). In the current experiment, the AAT had a good split-half reliability (odd–even method), with Spearman–Brown $r_s = .97$.

Procedure

The study was conducted in accordance with the Netherlands Code of Conduct for Research Integrity (Netherlands Code of Conduct for Research Integrity, 2018) as well as the research policies for patient-research of the hospitals involved. Data collection took place in three forensic psychiatric hospitals and the University of Amsterdam in the Netherlands. Participants took part on a voluntary basis. They were informed that they joined a research about attitudes toward women. All participants signed an informed consent form, which emphasized that therapists and staff would not get insight in the individual results of the patients. Participants were invited to either a laboratory room in the university (the community controls) or a quiet staff meeting room in one of the tbs-hospitals (the offender groups). Participants completed the tests and questionnaires on a 15.6" laptop in approximately 1 hr, only the Dutch Adult Reading Test was administered with pen and paper. Upon completion, participants received a €10 compensation. The current research used data from a larger research project and not all administered instruments were used for this article. The following instruments were administered in the following order:

1. Demographic information form
2. Deceitful-IAT or prestige-IAT
3. Prestige-IAT or deceitful-IAT. Because prior IAT-experience can cause learning effects (Greenwald et al., 2003), the order of deceitful-IAT and prestige-IAT

was counterbalanced such that half of the participants started with the deceitful-IAT and other half with the prestige-IAT

4. AAT
5. Explicit ratings of the IAT and AAT stimuli (not included in the current article)
6. Translated Ambivalent Sexism Inventory
7. Translated revised HTWS
8. Dutch version of the Balanced Inventory of Desirable Responding
9. Dutch version of the Social Potency Scale of the Multidimensional Personality Questionnaire (Eigenhuis et al., 2012) (not included in the current article)
10. Translated version of the Sexual Narcissism Scale to measure sexual narcissism (Widman & McNulty, 2010) (not included in the current article)
11. DART

Afterwards, participants were debriefed about the specific topic of the research. All implicit tests and questionnaires were programmed and administered using *Inquisit 4 (Millisecond Software)*. The AAT was programmed in *JavaScript Project Builder* and administered using *Joystick Program*. All patients gave consent to check their electronic files for the length of their treatment and the presence of intimate partner violence in their criminal history.

Statistical Analyses

All statistical analyses were performed using *IBM SPSS Statistics 21*. Effect sizes are reported to conform Cohen's standards, where Cohen's $d = .20$ is considered a small, $d = .50$ medium, and $d = .80$ a large effect (J. Cohen, 1992). First, using one-way analyses of variance (ANOVAs), we compared whether the rapist group, nonsexual offender group, and community control group differed on age, IQ (DART), social desirable responding (Self-Deceptive Enhancement Scale and Impression Management Scale), nationality, identity, education, and whether they ever lived together with a women for more than 2 years. Any variable that differed significantly between the groups and showed a medium to large correlation with the dependent variables was incorporated in the main analyses as covariate.

Subsequently, we conducted a multivariate analysis of variance (MANOVA) to assess differences between the groups on the dependent variables: hostile sexism, benevolent sexism, deceitful-IAT, prestige-IAT, and AAT. As hostility toward women did not show a normal distribution for all three groups, not even after log transformation or inverse transformation, it was analyzed with a Kruskal-Wallis H-test instead. Three outliers were excluded from the analyses of benevolent sexism and one subject was excluded from the deceitful-IAT and prestige-IAT analyses because he reported not to understand the instructions.

Finally, we conducted a discriminant analysis to assess which experimental variables could discriminate between the groups. Canonical correlation coefficients can be considered relevant with a factor loading of $r > .40$, conform the interpretation of

factor loadings with factor analysis (Field, 2009). These correlation coefficients show to what extent the variables add to the discrimination of the groups, with higher correlations indicating larger contributions to the discrimination of the groups. Effect sizes of the discriminant analyses are reported in canonical R^2 , where $R^2 = .01$ is considered a small effect, $R^2 = .09$ medium, and $R^2 = .25$ a large effect (J. Cohen, 1992).

Results

Control Variables

Despite the efforts to match the participants in the various subgroups as closely as possible, a number of differences were found. In a one-way ANOVA, nonsexual offenders were significantly less intelligent (DART IQ) than community controls, $F(2,145) = 4.08, p = .019, d = .53$. Rapists were significantly older than community controls, $F(2,146) = 3.17, p = .045, d = .51$. Furthermore, nonsexual offenders showed significantly more self-deceptive enhancement than community controls, $F(2,146) = 5.50, p = .005, d = .63$. In a Chi-square test, the groups also differed significantly in education, $\chi^2(8) = 20.99, p = .001$, “having ever lived together,” $\chi^2(2) = 8.33, p = .016$, and nationality, $\chi^2(2) = 7.21, p = .027$ (see Table 1). The differences in education could be traced back to the offender groups choosing the option “other” more often, referring to specific training they received during treatment. Part of these answers could be re-classified into the given categories, but another part could not be quantified by the researchers. Overall, the community control group appeared to have received somewhat more education than the other two groups. Finally, albeit nationality differed, the reported sense of identity did not differ significantly between subgroups and we did not control for nationality in subsequent analyses.

Since all correlations between control variables and experimental variables were small, we chose not to control for these variables in further analyses. However, given the substantial difference between rapists and nonsexual offenders and its possible relevance being a risk factor in the STABLE-2007, “having ever lived together” was assessed further in exploratory analyses (see Online Supplement).

Main Analyses

The groups differed significantly in the MANOVA of all dependent variables, Wilks’s $\Lambda = .74, F(12,268) = 3.57, p < .001, d = .80$, a large effect size. Post hoc tests showed that rapists scored significantly higher than community controls on benevolent sexism and significantly lower than community controls on deceitful-IAT scores. Table 2 shows the mean scores and effect sizes of the dependent variables, Figure 1 shows the normalized mean scores and 95% confidence intervals. On the Kruskal–Wallis test, hostility toward women did not significantly differ between the groups, $H(2) = 4.96, p = .084$. A correlation matrix of the variables for the subgroups is presented in Online Supplement Table S1.

Table 2. Mean (SD) and Cohen's *d* (95% Confidence Interval) of Dependent Variables Total and Split Sample.

Group	Hostile sexism		Beneficent sexism		HTWS		Deceitful-IAT		Prestige-IAT		AAT	
	<i>M</i> (SD)	<i>d</i> (95% CI)	<i>M</i> (SD)	<i>d</i> (95% CI)	<i>M</i> (SD)	<i>d</i> (95% CI)	<i>M</i> (SD)	<i>d</i> (95% CI)	<i>M</i> (SD)	<i>d</i> (95% CI)	<i>M</i> (SD)	<i>d</i> (95% CI)
Total sample												
Rapists (<i>n</i> = 42)	1.72(.68)		2.08(.70) _A		.13(.18)		.06(.41) _A		-.52(.43)		.1(.40)	
Nonsexual offenders (<i>n</i> = 65)	1.85(.78)	-.18 [-.56, .21]	2.13(.64) _A	-.07 [-.46, .31]	.21(.22)	-.40 [-.78, .00]	.09(.42) _A	-.07 [-.46, .32]	-.34(.53) _A	-.36 [-.75, .03]	.14(.41)	-.07 [-.46, .31]
Community control (<i>n</i> = 42)	1.97(.65)	-.38 [-.80, .06]	1.61(.53) _b	.76 [.31, 1.19]	.15(.13)	-.13 [-.55, .30]	.28(.38) _b	.56 [-.99, -.12]	-.59(.49) _b	.15 [-.28, .58]	.03(.41)	.20 [-.23, .62]
Lived together												
Rapists (<i>n</i> = 31)	1.83(.57)		2.01(.73)		.15(.20)		.04(.41)		-.50(.45) _A		.15(.38)	
Nonsexual offenders (<i>n</i> = 31)	1.88(.84)	-.07 [-.45, .32]	2.08(.62) _A	-.10 [-.49, .28]	.24(.26)	-.38 [-.77, .02]	.19(.35)	-.40 [-.79, .01]	-.18(.47) _B	.69 [-.109, -.29]	.11(.48)	.09 [-.30, .48]
Community control (<i>n</i> = 20)	1.78(.62)	.08 [-.34, .51]	1.59(.53) _b	.66 [.21, 1.09]	.12(.13)	.18 [-.25, .60]	.24(.40)	-.49 [-.92, -.06]	-.62(.49) _A	.26 [-.18, .68]	.02(.44)	.32 [-.12, .74]
Not lived together												
Rapists (<i>n</i> = 11)	1.45(.88) _A		2.41(.60) _A		.07(.08)		.10(.41)		-.57(.36)		.07(.50)	
Nonsexual offenders (<i>n</i> = 34)	1.81(.69)	-.46 [-.86, -.07]	2.17(.66) _A	.38 [-.02, .77]	.20(.18)	-.87 [-.127, -.46]	.01(.46) _A	.20 [-.19, .59]	-.45(.56)	-.24 [-.63, .15]	.13(.34)	-.15 [-.53, .24]
Community control (<i>n</i> = 22)	2.13(.66) _b	-.87 [-.13, 1.42]	1.62(.54) _b	1.38 [.90, 1.85]	.19(.13)	-1.11 [-.156, -.64]	.35(.36) _b	-.65 [-.108, -.20]	-.52(.49)	-.12 [-.54, .31]	.05(.36)	.05 [-.38, .47]

Note. NB. Cohen's *d* is calculated as the difference between the rapist group and control groups. Different subscripts A, B and bolded effect size indicate mean scores differ from each other at *p* < .05. HTWS = Hostility Toward Women Scale; IAT = Implicit Association Test; AAT = Approach–Avoidance Task

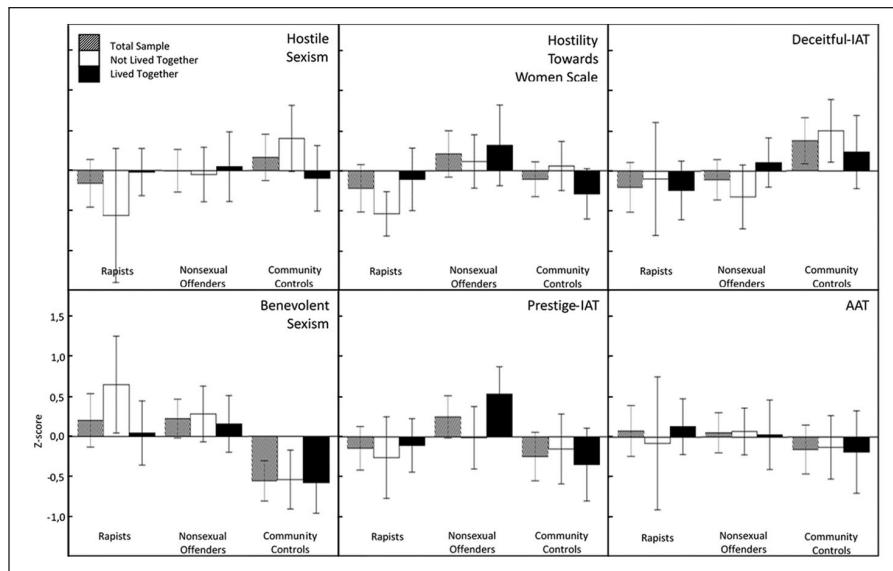


Figure 1. Standardized mean scores with 95% confidence interval for rapists, nonsexual offenders, and community controls, and split for lived together and not lived together.

Using discriminant analyses, rapist and nonsexual offenders could not be discriminated at a significant level on hostile sexism, benevolent sexism, hostility toward women, deceitful-IAT, prestige-IAT and AAT, Wilks' $\Lambda = .94$, $\chi^2(6) = 5.56$, $p = .474$, canonical $R^2 = .06$, a small effect. Rapists and community controls could significantly be discriminated, $\Lambda = .74$, $\chi^2(6) = 23.16$, $p = .001$, canonical $R^2 = .26$, a large effect. Two coefficients seemed relevant ($r > .40$): Benevolent sexism and deceitful-IAT. See Online Supplement Table S2 for the structure matrix of the discriminant function for rapists versus community controls and the canonical correlation coefficients. Benevolent sexism shows the highest correlation ($r = .65$) and therefore is the most characterizing variable in the discrimination between rapists and community controls. Deceitful-IAT D-score has the second highest correlation ($r = -.48$). The group centroids indicate that rapists show significantly more benevolent sexism and lower deceitful-IAT D-scores (meaning they see women as less deceitful) than the community controls.

Exploratory analyses: Ever lived together. Exploratory analyses showed that the above findings are especially pronounced between rapists and community controls that have never lived together with a woman (see Online Supplement: Exploratory Analyses Ever Lived Together; and Table 2). Rapists who never lived with a woman showed more benevolent sexism, less hostility toward women, and less hostile sexism than community controls who never lived together, while the effects for the groups that did live together were less pronounced.

Discussion

The current study explored hostile and ambivalent attitudes toward women in high-risk rapists, compared with a control group of nonsexual offenders and community controls. The results showed that high-risk rapists had less hostile attitudes toward women, especially a lesser implicit notion of women as deceitful, than community controls. Also, high-risk rapists showed more relatively “positive” attitudes (benevolent sexism) toward women than community controls. The differences were most pronounced between rapists and community controls that had never lived together with a woman. These findings contradict our hypothesis that rapists would show ambivalence, that is, both higher hostile and “positive” attitudes.

The population in this study was defined by the tbs-disposition which is an exceptional disposition, imposed on less than 5% of convicted rapists in the Netherlands (Brouwers & Smit, 2005) who generally have a psychiatric or developmental disorder, have committed a (series of) very severe sexual offenses, and are deemed to be at high-risk to reoffend. One would expect this group to score higher on the sexual offense risk factor “hostility toward women” than community controls. The rapists’ STABLE-2007 scores indicate absence of hostility toward women for the majority of the sample. Superficial comparisons with international research indicate that the rapist group in the current study scored notably low on hostility toward women, rather than the community control group scoring notably high (Degue & DiLillo, 2004; Gallagher & Parrott, 2011). Noteworthy, the prevalence seems lower than in previous lower risk samples such as the DSP-sample (Hanson et al., 2007).

Further of note is that the control group of nonsexual offenders appeared to have more extreme scores than the rapist group, meaning more hostile as well as more relatively “positive” attitudes toward women. Albeit quite consistent and sometimes with considerable effect sizes, these differences did not reach statistical significance. Nonsexual offenders with a tbs-dispositions are an equally rare group of offenders with extreme offense patterns and cannot easily be compared with nonsexual offenders in general. The current study cannot account whether it is just rapists exhibiting high levels of “positive” attitudes or high-risk offenders more generally. Clearly, this is a topic that deserves further investigation.

Finding lower hostility in high-risk rapists could be explained because high-risk sex offenders may be qualitatively different from typical sex offenders and may follow different routes to their offending behavior (Smid & Wever, 2019). Systematic reviews with specific rapist samples conclude that hostile beliefs may indeed play no significant part in some types of offenders (James & Proulx, 2016; Johnson & Beech, 2017). We stipulate that in this study, there were considerable individual differences. Although the rapist group on average showed less hostility toward women than the community controls, a few of the individual rapists showed the highest scores on hostility toward women of the entire sample. This indicates that for individual high-risk rapists, hostility toward women can be a relevant factor to assess and must not be missed.

Overall, the results indicate that hostility toward women may not be a specifically evident problem in high-risk rapists, both in clinical experience and in empirical

testing, but benevolent sexism might be. From our results, it might be suggested that unrealistically “positive” attitudes toward women actually are not so benevolent as they might be related to sexual offending. Such attitudes toward women, in combination with sexual deviance, antisocial tendencies, deficient social skills, and/or feelings of rejection and disappointment, may make men approach women in inappropriate and unsuccessful, aggressive ways (Kaldewaij et al., 2016; Woerner et al., 2018). Gaining experience with a woman (e.g., living together) might temper these unrealistically “positive” attitudes, explaining the difference in attitudes between rapists with and without a relationship history (cf. the results of Hofmann et al., 2009). Some support for this suggestion can be found in a study into anxious attachment style and sexual assault perpetration (Barbaro et al., 2016). Barbaro et al. describe an anxious attachment style as reflecting a strong desire for intimacy and a fear of rejection and find it to predict sexual violence in a sample of college students, with hostile masculinity acting as a mediating variable. Likewise, high-risk juvenile sexual offenders were found to score higher on intimacy seeking than low risk sexual offender juveniles (Zakireh et al., 2008). Future research directly comparing high-risk and low risk sex offenders against adults and student samples, may help to elucidate if hostile and relatively “positive” attitudes toward women play a different role in the offending behavior of these groups.

An alternative explanation is that treatment has reduced hostility toward women in the rapist group. However, the field study showed that hostility toward women was not a common focus of treatment in the three participating tbs-hospitals. Although in general treatment has a wide effect, it seems unlikely that treatment that does not specifically focus on hostility toward women would still achieve such a major effect. Inspection of correlations showed a positive relation between treatment duration and hostility toward women: longer treatment related to more hostility toward women. It is a limitation of this study that we did not consider the content of treatment in the offender groups. The field study did not assess whether other prosocial behaviors were addressed in treatment, which could have contributed to more benevolence toward women.

Strengths of this study include the nature of the community control group. Most research has used convenience/student samples, while the current study actively focused on recruiting a control sample that matched the offender groups as closely as possible on demographic variables. As a result, the control group in the current study is considerably less educated and older than most previously used control groups. It seems important to carefully select and match control groups in future research, as demographic differences may play a role. Other strengths are the use of both implicit and explicit measures, which provides a broad, multidimensional assessment battery for the concepts of hostility and benevolence toward women. Finally, the study includes a relatively homogeneous sample of high-risk rapists, whereas most of the literature on this topic includes heterogeneous samples.

Conclusion

For sexually transgressive behavior in the general population, hostility toward women is a risk-relevant factor, identifying people who are more likely to cross the line in

certain situations and under certain circumstances. For high-risk, serial rapists, who may have a special interest in coercive sex, this could be well different. In the current study, high-risk rapists showed lower hostility toward women than community controls and previous routine sex offender samples. This indicates that high-risk rapists may be qualitatively different from typical sex offenders. Some high-risk rapists may commit offenses from a hateful, hostile attitude toward women: a desire to harm women and to dominate them. However, even in this study's particular subgroup of high-risk rapists, these hostile rapists seem to constitute a small minority. For most other high-risk rapists, hostility toward women seems not to be a very risk-relevant factor. In combination with other risk factors, relatively "positive" attitudes toward women might make them approach women in inappropriate and unsuccessful, aggressive ways. Gaining experience with a woman (e.g., living together) might temper these unrealistically "positive" attitudes, explaining the difference between rapists with and without a relationship history.

Authors' Note

The authors take responsibility for the integrity of the data, the accuracy of the data analyses, and have made every effort to avoid inflating statistically significant results.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. "Offender expresses negative, hostile and/or sexist attitudes toward women and their roles. There is evidence of conflict (which may or may not include overt violence) with a variety of women across several life domains, or there is little or no overt conflict but negative attitudes are pervasive, demonstrated in behavior, and offence-related" (Fernandez et al., 2012, p. 50).

2. Although we are using the word “positive,” this does not imply that women perceive the intended attitudes as positive. Rather, it refers to a relatively and subjectively positive assigned value that is not hateful or angry but more affective or desiring.

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